

Future Highway 5/212 Corridor Land Use Plan

Prepared for the City of Norwood Young America

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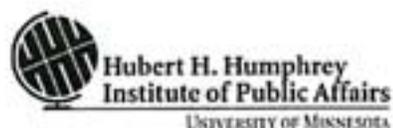
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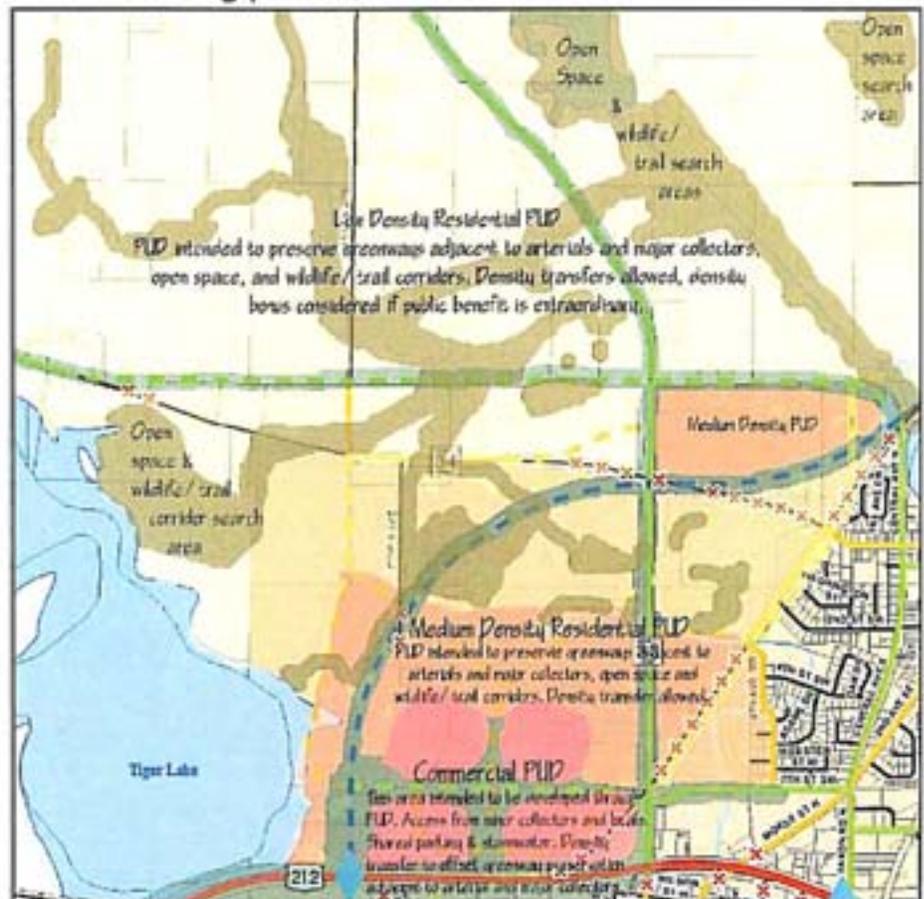
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Introduction

The purpose of this report is to establish land use planning and design recommendations for the area currently designated the 'Future Additional Study Area' in Norwood Young America. The city did not develop a land use plan for this area during the 2008 comprehensive plan update due to pending transportation planning activities. In October 2008, SRF, MnDOT, and Carver County completed the T.H. 5 Corridor Study and produced specific recommendations for the Interchange of Highway 5 and Highway 212. The motivation behind these improvements is to improve the safety, accessibility and functionality of Highway 5, the primary connector between the edge communities of Chanhassen, Victoria, Waconia, and Norwood Young America. The changes proposed for Highway 5 in Norwood Young America, while not likely to take effect in the near future, open up new possibilities for development. The land along Highway 212 is suitable for commercial use, with the potential for more residential uses behind. While forecasts for new growth support the viability of new commercial sites along the corridor, Norwood Young America should consider carefully how this area can best be integrated into its existing urban fabric.

City staff, working in conjunction with consultants from Municipal Development Group, generated a basic conceptual plan for how the land uses could be configured to achieve urban development goals while protecting and enhancing green infrastructure. This conceptual map (Map 1) served as a starting point for the research and recommendations described in this report. *The findings in this report are intended to provide guidance and advice for how the City of Norwood Young America can address the changes which will likely occur in this area in the coming decades, and are not final.*

This report is divided into ten sections with an attached appendix. The Background section deals with the existing land uses and features of the 'Future Additional Study Area' as well as the ongoing planning processes that informed many of the design decisions and recommendations. The Environmental Analysis section of the report describes the physical site characteristics relevant to



Map 1: Conceptual Land Use Plan for the Additional Future Study Area

development potential, sensitive ecological areas, and transportation infrastructure. The Needs, Concerns, and Opportunities section of the report functions as a summary of the previous two sections which synthesizes the findings into a list of requirements and goals for the area. The Potential Scenarios and Workshop Results section describes the potential land use scenarios designed to elicit feedback from the community. This section also contains the reactions to these scenarios and the results of a visual preference survey for members of the community, city staff, and members of the planning commission. The Land Use Plan is the refined composite of the potential scenarios and contains a narrative that describes what the configuration of land uses is intended to accomplish and how it interacts with Norwood Young America's larger goals. The Implementation Strategies section establishes chronological benchmarks and precedents for how Norwood Young America can take action to accomplish various goals outlined in the process. Finally, there is a short conclusion followed by a bibliography, acknowledgements and an Appendix.

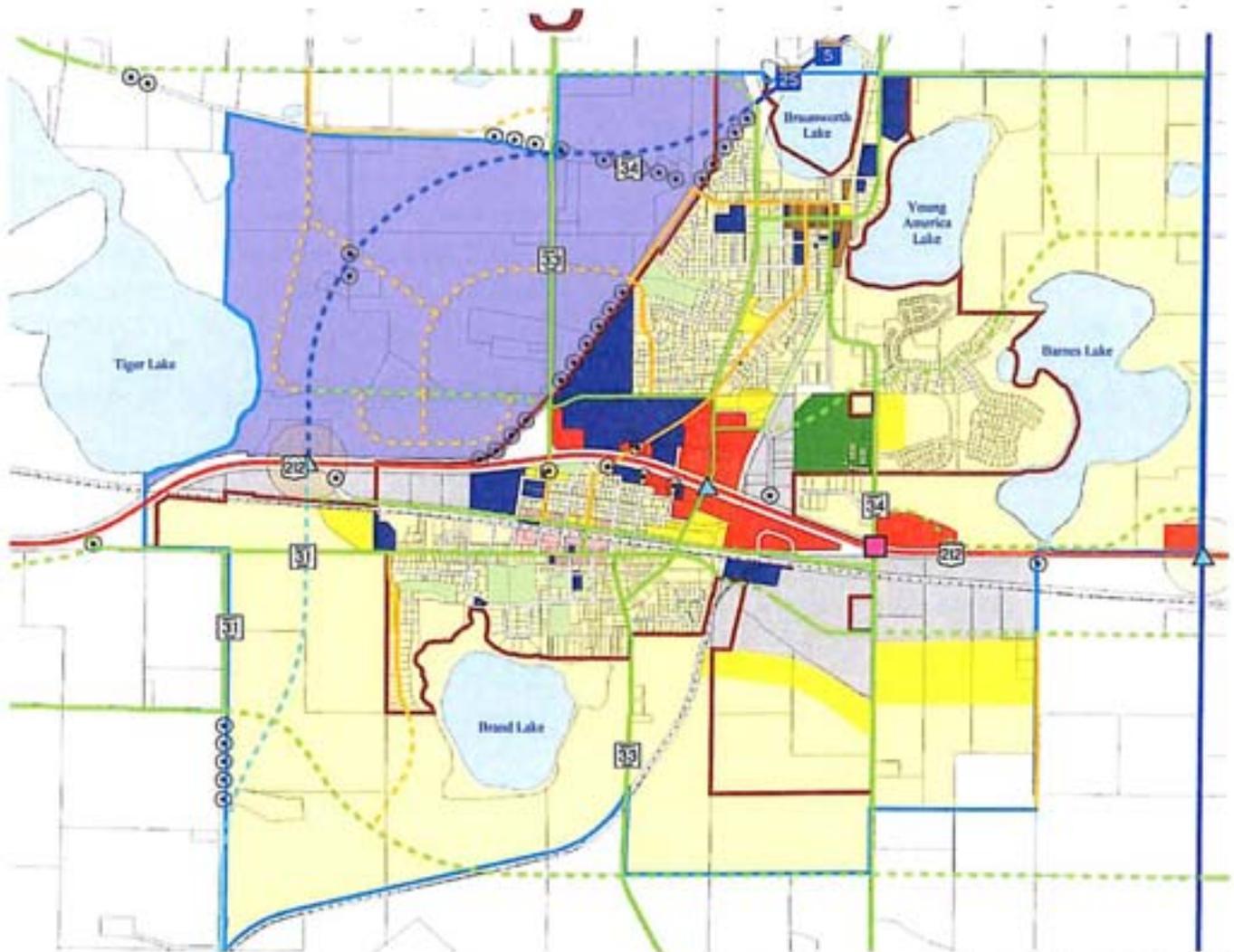
Background

The 'Future Additional Study Area' is a complicated land use planning problem as it lies at the crossroads of several ongoing planning initiatives. In addition to Norwood Young America's own comprehensive plan, the recently completed Highway 5 Corridor Study and the ongoing planning processes for Highway 212 present additional challenges that require ongoing collaboration with state agencies and Carver County to ensure that new development is appropriate. In addition to the plans concerned with transportation and land use, this report also consolidates the relevant facts from the ongoing Norwood Young America Greenway Legacy Plan and Carver County's Comprehensive Plan. This section of the report consolidates the key findings from each of these planning documents as they pertain to the 'Future Additional Study Area.'

Norwood Young America 2008 Comprehensive Plan Update

The area currently set aside as the "Future Additional Study Area" is set to be acquired as part of the city's orderly annexation agreement with Young America Township as it becomes ripe for development. The land currently houses agricultural uses with an allowed density of 1 dwelling unit per 40 acres (Map 2). This area, currently in transitional/agricultural use currently lies outside of Norwood Young America's jurisdiction and is intended to remain undeveloped until the city can serve this areas with infrastructure. The city has a phasing plan which has prioritized new residential development on the eastern side of town (Appendix Item 1A). The city expects there to be interest in new development along Highway 212 in the next five to ten years. Most of this interest is expected to be from commercial developers.

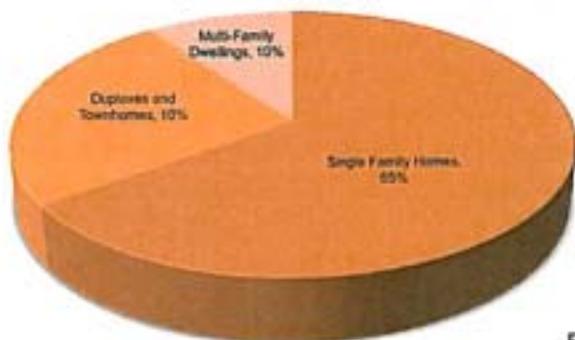
In order to assess the likely demand for new land it is important to analyze the expected population growth, median income, demographics and market demand for the community. Population growth in Norwood Young America has fallen behind expected projections. DSU research projected a population of 4,360 in 2010, while the current estimate is approximately 3,669. The projected population range for 2030 is between 8,800 and 11,870 according to DSU Research and the Metropolitan Council (NYA Comp



Map 2: Norwood Young America Future Land Use (Extents of the Additional Future Study Area shown in lavender)

Plan, p. 2-3). Norwood Young America is expected to have a larger proportion of elderly residents as well as greater ethnic diversity. There will also likely be an increase in single person households as well as households without children (NYA Comp Plan, p. 2-5). The expected distribution of housing by type is shown in Figure 1. The accompanying acreage demand for single and multifamily households is listed beside the table. These numbers

Forecast Percentages of Housing Density Distribution in 2020



Housing Estimates – 2,128 Single Family Residential homes = 713 acres

Housing Estimates – 1,821 Multi-Family Residential homes = 182 acres

Affordable Housing – 194 Units Minimum – More is Better

Figure 1: Projected distribution of housing demand by type in 2020

provide the basis for determining what land use demands will need to be accommodated through urban expansion.

Land Use Type	Acres Needed by 2030*	Acres Potentially Available for Development*:		Total	Over / Under
		Within the City that are Vacant	Additional Planned for on the Future Land Use Map		
Residential	1,002	175	1,315	1,490	488
Single-family	793	166	1,224	1,390	597
Multi-family	208	10	90	100	-108
Commercial	120	14	21	35	-85
Industrial	122	13	167	177	55
Total	1,244	200	1,502	1,702	458

Table 1: Future Land needs assessment for Norwood Young America

Table 1 comes from the comprehensive plan (p. 4-17) and provides a neat rubric for determining what land uses are under-accommodated in the existing land use plan. As shown, the city has an excess of land devoted to single family residential expansion, but has deficits in the acreage required for commercial use and multi-family housing. These land uses, along with areas to be protected for open space and green infrastructure are the primary land uses that need to be accommodated within the 'Future Additional Study Area'.

Norwood Young America is unique in that was once two cities which have now merged together. One consequence of this is that the city boasts two traditional "downtown" areas, bisected by the Highway 212 corridor which supports a highway commercial district for automobile oriented businesses. The Twin Cities and Western Rail runs parallel to the highway and adds additional value. The city is well positioned to capitalize on these transportation amenities.

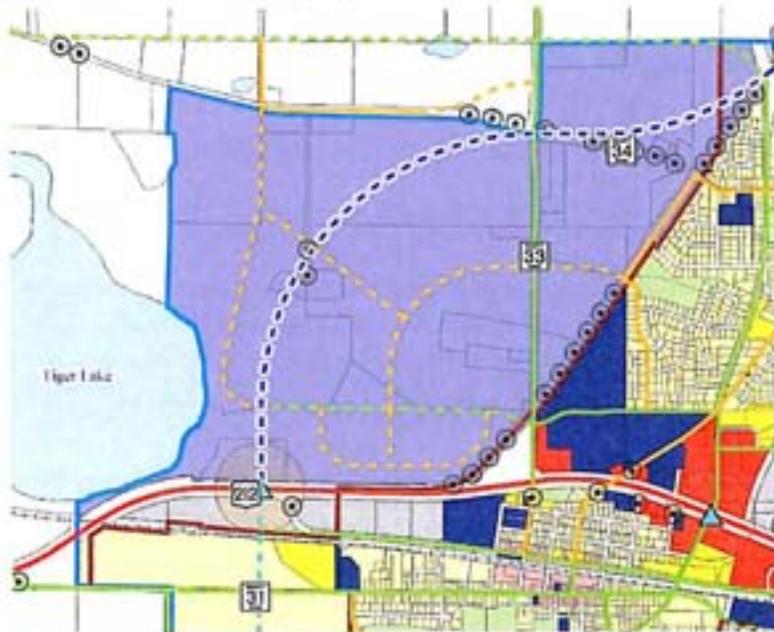
The proposed re-routing of Highway 5 and traffic from new suburban development have the potential to create a new commercial hub centered around the future intersection of Highways 5 and 212. While not likely to occur in the next ten to fifteen years, this change has the potential to create a new commercial hub located geographically outside of the city center. Market research predicts that most new demand for commercial structures will be for free standing, automobile oriented, single use businesses (NYA Comp Plan pp. 2-20 - 2-22). The intersection of Highway 5 and Highway 212 currently is aligned in a way that it is not capable of providing access to sites along 212 west of Highway 5. This issue is addressed briefly in the Transportation section of Norwood Young America's comprehensive plan.

Norwood Young America has planned for the realignment of this intersection which would create backage road access into the 'Future Additional Study Area.' (Figure 2) This realignment, as well as the planned changes to the road network , are demonstrated in Appendix Item 1B which shows the roadway classifications



Figure 2: Planned future alignment of 5/212 Intersection

and a tentative road network for the 'Future Additional Study Area'. This map served as a starting point for the road layout recommended in this report. Of particular importance are the geometric standards and road hierarchies established in this section. These are demonstrated in Figures 3 through 6, and will ensure that all planned roads meet the standards established by MnDOT, Carver County and Norwood Young America. The Carver County transportation plan adds the additional qualification that a frontage road is intended to be implemented along Highway 212 in urban areas along the corridor. This means that there will likely be further expansion of the 212 right of way and the possibility for pedestrian friendly redevelopment when this occurs in Norwood Young America. It is important to note that all of the proposed alignments demonstrated in this report are tentative and will



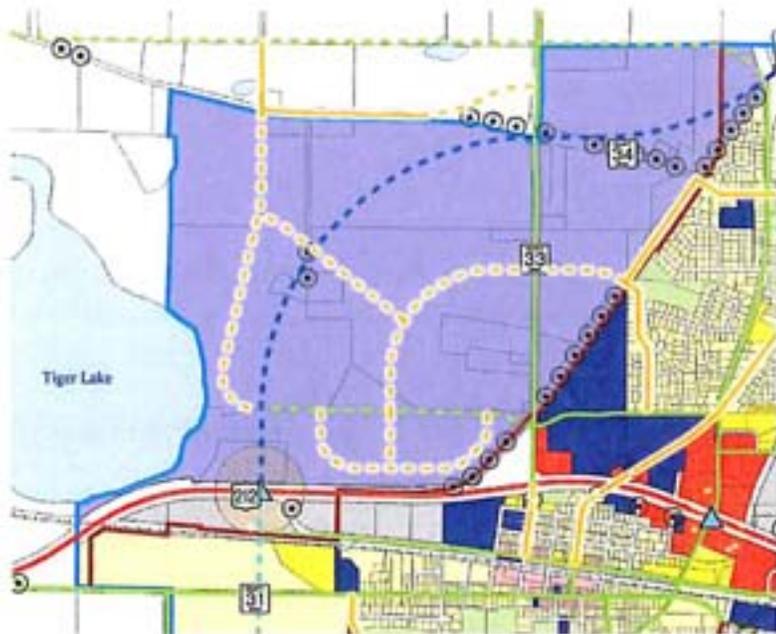
- Minor Arterial - Highway 5
- State Jurisdiction
- 150' R.O.W
- Intersection spacing at 1/4 mile minimum in NYA
- 40' buffer for berms and trails
- Current route cuts through farmstead

Figure 3: Minor Arterial Design Standards



- Major Collectors – ex. 7th St
- Local Jurisdiction
- 100' R.O.W
- Intersection spacing at 1/8 mile between Major collectors
- 300' spacing for local streets
- Option for median or on-street parking

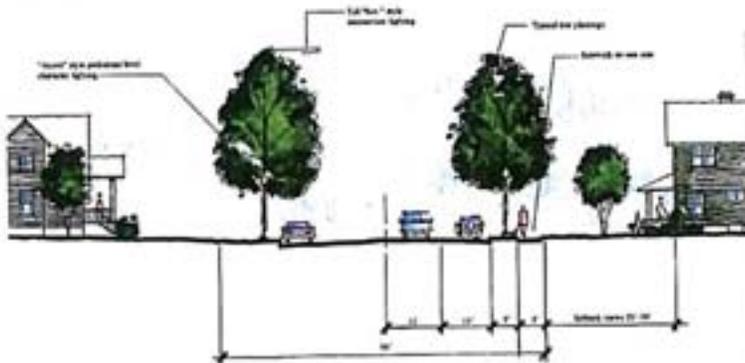
Figure 4: Major Collector Design Standards



- Minor Collectors – Central Ave.
- Local Jurisdiction
- 66'-80' R.O.W
- Intersection spacing at 300' for local streets
- Option for on-street parking
- Rule of Thumb: One minor collector for every 100 homes

Figure 5: Minor Collector Design Standards

NORWOOD YOUNG AMERICA
Typical Residential Collector Street



- Local Roads
- Local Jurisdiction
- 66' R.O.W
- Intersection spacing at 300' for local streets
- Option for on-street parking
- Rule of Thumb: Should not cross major collectors or arterials

Figure 6: Local Street Design Standards

Trunk Highway 5 Redevelopment Plan

This plan, completed in October 2008, is primarily concerned with changes to the Highway 5 corridor around the rapidly urbanizing communities to the east of Norwood Young America. However, the plan does establish what it calls a "Locally Supported Conceptual Layout" for the new Highway 5 realignment (Appendix Item 1C). While this layout varies somewhat from the road alignment found in the City's Comprehensive plan, the alignment is quite similar and both will inevitably change pending the results of an in-depth environmental analysis. More important are the policy recommendations contained in the report and the

implementation timeline.

The plan ranks the realignment as "High Priority" which means that it is likely to happen 15 – 20 years from now (T.H. 5 Study p.88). However, the plan also establishes the need for the city to protect the newly proposed right of way from development through protective zoning and subdivision regulations. The plan specifies the geometric standards for the corridor (Appendix Item 3) in both rural and urban areas and describes the preferred style of residential development (Figure 7). In addition, the plan specifies a buffer



Figure 7: Preferred Subdivision Street Hierarchy

distance of at least 40' from the edge of the right of way to ensure that adequate berming and vegetative buffering are in place to prevent road noise hazards (T.H. 5 Study p. 84). The plan also establishes the need for further study regarding the current Highway 5, County Road 34, and 7th street intersection. This aspect of the plan is not emphasized as being of great urgency. If the city wishes to prioritize changes to this intersection it will likely need to advocate for an increased prioritization and present a desired vision based on future development proposals. It may also be possible to expand the partnership study performed for the TH 212/CSAH 34 Intersection (NYA Partnership Study, May 2002).

Highway 212 Corridor Management Plan

The Highway 212 Corridor Management Plan, completed in 2002, is likewise primarily concerned with the more rapidly urbanizing communities to the east and has guided many of the changes to the recently completed Highway 212 realignment. This plan foresees the eventual widening of 212 through Norwood Young America and specifies the consolidation of intersections to reduce traffic hazards and prepare for the eventual addition of frontage roads. The plan calls for the removal of several smaller intersections in Norwood Young America which are indicated with an X on Appendix Item 1B. Aside from the removed intersections and planned right of way expansion the report only contains outdated planning regarding the 5/212 intersection.

Vision 212

While still incomplete, Vision 212 is a strategic plan to guide the economic development of the communities located along Highway 212. This plan establishes goals and objectives that these communities can work towards cooperatively to attract businesses, improve housing options, create a linked open space network, improve public education, and implement an intra-regional transportation network. The plan seeks to capitalize on the improved access that the Highway 212 realignment provides and create a collaborative vision to guide cross-jurisdictional planning.

As it stands the plan is still in an early visioning stage and does not have many specific recommendations that will impact the 'Future Additional Study Area.' One specific recommendation that is important to consider is the goal of enhancing public transportation options along the 212 corridor. The plan mentions the success of Southwest Metro's Bus Line and the goal of creating a commuter rail line. The possibility of these long term suburban amenities extending out towards Norwood Young America is an intriguing possibility, but one that requires thoughtful land use planning and committed actions. The city must decide to what extent it would like to pursue growth and higher densities to create ridership necessary to extend transportation coverage (Vision 212, p. 10).

The second goal which has direct implications on the 'Additional Future Study Area' is the recommendation to create a connected regional trail and open space network. This goal complements the goals of the Norwood Young America Greenway Legacy Plan (Vision 212, p.11).

Norwood Young America Greenway Legacy Plan

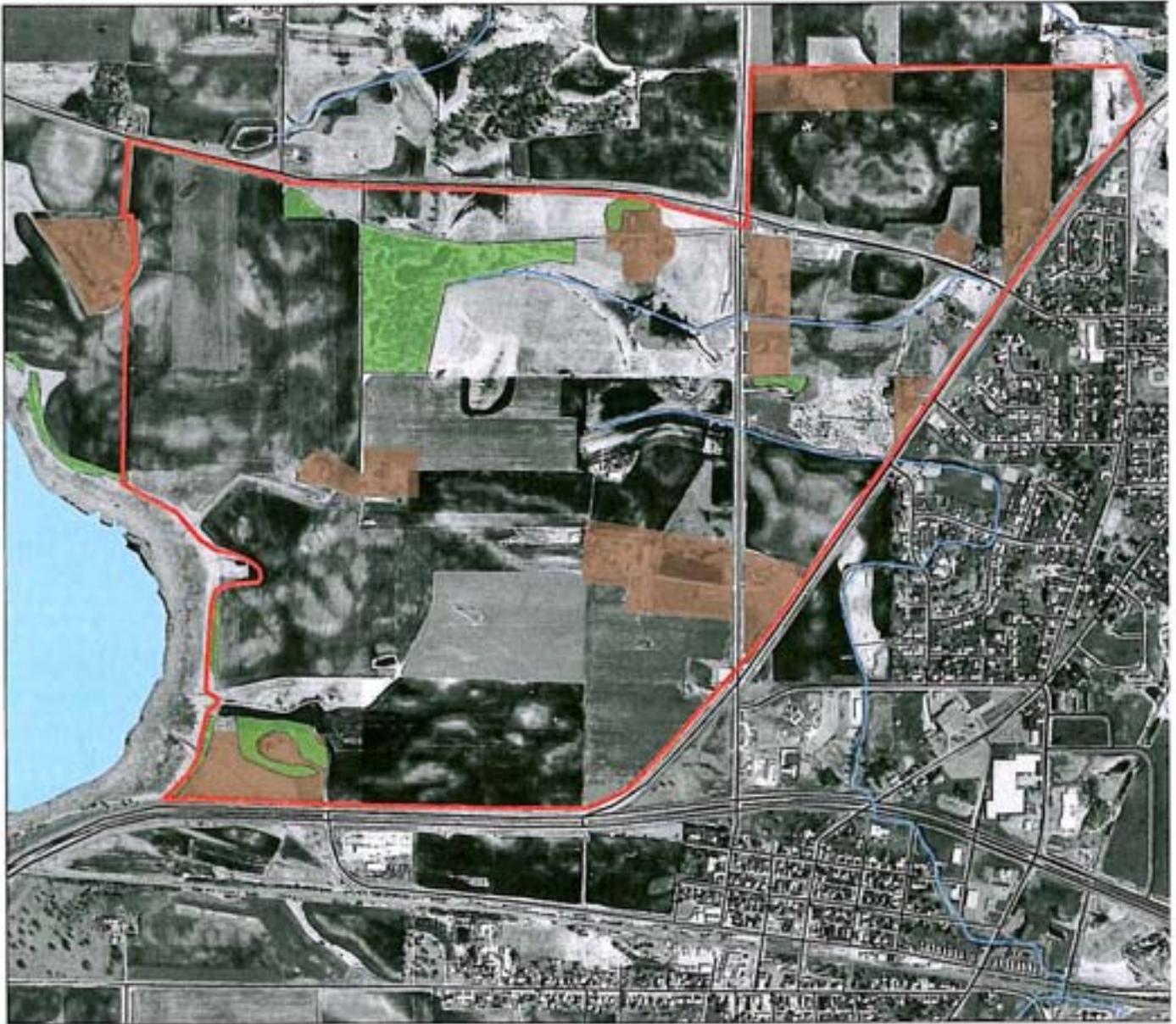
The Greenway Legacy Plan establishes the objective of connecting lakes, open space, public parks, recreation facilities, activity centers, and local landmarks such as schools and religious centers with a trail network and public greenways. The purpose of this greenway is to protect water bodies, preserve open space for future generations and act as an armature for new development. The plan is still in progress as of this writing and there are a series of workshops planned for 2010. Tiger Lake sits to the west of the 'Future Additional Study Area' and is surrounded by lacustrine wetlands. Initial planning identified the need to protect the areas around Tiger Lake and create a connection to Baylor Regional Park to the north. This plan builds on the Norwood Young America trails plan and seeks to integrate ecological functionality and water resource protection. The conceptual trail alignment is demonstrated in Appendix Item 1D.

Summary

The 'Future Additional Study Area' was left as a blank spot during the last comprehensive plan update. Despite this, inputs from neighboring plans and the basic land use scheme developed by Municipal Development Group provided ample guidance to begin shaping a more in depth land use planning process. The other components of the process are an environmental analysis and a public participation process to determine the most appropriate configuration of land uses for the 'Future Additional Study Area.'

Environmental Analysis

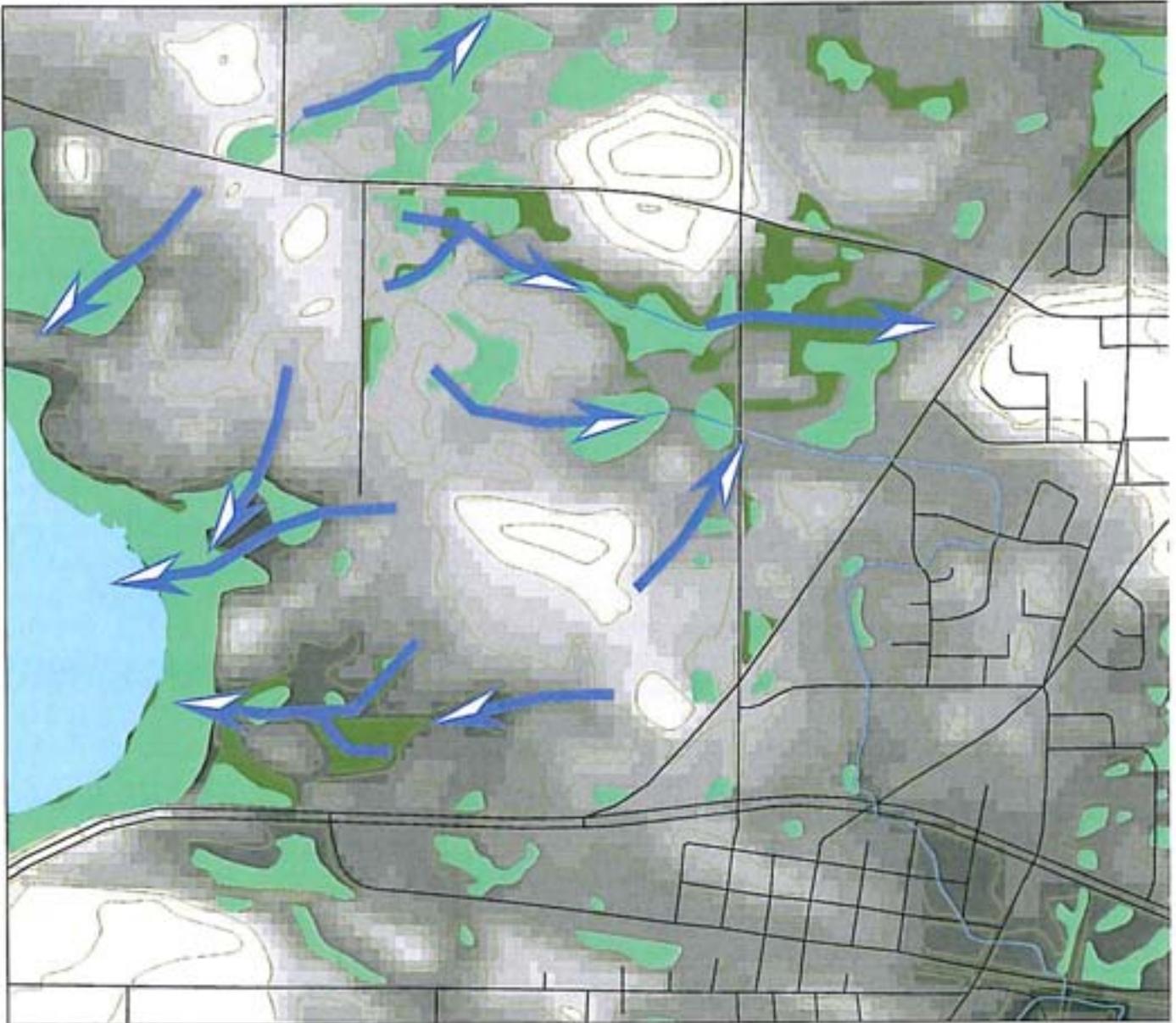
The 'Future Additional Study Area' is currently in predominantly agricultural use with farmsteads and fallow fields interspersed within a matrix of cropland. Map 3 is an aerial photo that displays the location of the cropland, which tends to be a darker grey, while the wetlands and seasonally flooded pastures are white or variegated.



Map 3: Aerial photograph demonstrating land cover within the 'Future Additional Study Area'

The farmsteads as well as the woodlots in the area are also identified in Map 3 with the farmsteads in brown and the woodlots in green. Established drainage channels are shown in blue. Based on this configuration of land cover it is possible to prioritize the protection of certain ecological features, historic farmsteads, or working agricultural farmland.

In the context of land use planning, it is vital to consider what changes to the landscape might have negative impacts on local habitat and water quality. Map 4 identifies the wetlands in light green with seasonally flooded areas in dark green. These are overlain on top of the topography of the area. The lighter areas represent the higher elevations with the dark areas being proportionally lower. It is then possible to identify natural drainage paths (shown as blue arrows). Map 4 illustrates that there is a ridge that runs down the middle of the site with one side flowing towards Tiger Lake and another flowing through the wetland complex in the middle of the study area and then through a drainage ditch to the south.



Map 4: Topographic and Hydrologic Features of the Landscape

The inherent suitability of the soils for development is another critical factor in determining where it is most appropriate for development to occur. Since no development can occur in this area until it can be served with municipal sewer and water it is not necessary to consider the suitability of soils for septic drain fields. Map 5 demonstrates the suitability of the soils for buildings with basements. The areas in red are the least suitable and those in yellow are the most suitable. This map corresponds closely to the topography, with both hydric soils and lowland areas being least suitable for dwellings.



Map 5: Soil suitability for dwellings with basements

Summary

When assessed as a composite the results provide guidance about where and to

what extent development should occur. The suitability of the landscape for development is also highly dependent on human factors such as location relative to major roads and the availability of infrastructure service. Commercial retail businesses are highly dependent on visibility from major roads, a factor which makes the land in the southern portion of the 'Future Additional Study Area' well suited for that purpose.

Policies can also have important implications regarding where certain kinds of development are appropriate. Norwood Young America's comprehensive plan encourages new commercial development to be centered around intersections rather than sprawling along corridors (NYA Comp Plan, p.2-22). In addition, it also specifies that residential neighborhoods should be configured so that they do not place private access on major collector streets and roughly follow a grid pattern (NYA Transportation Plan, Appendix A p. 24). These policies do not provide concrete guidance regarding land use, and periodically contradict other policies in the plan.

The best configuration of land uses is highly dependent on the larger goals of the community and the values of neighbors, conservationists, private developers and taxpayers. For this reason, it was necessary to implement a series of public participation workshops to gain feedback from the public and decision makers regarding their preferences. Based on the initial policy research and environmental analysis, this report consolidates the findings into what needs to occur, what elements are cause for concern, and what opportunities exist.

Needs, Concerns, Opportunities

Needs

- The land use plan must provide 194 units of affordable housing by 2030, per the Metropolitan Council.
- The current 5/212 intersection must be realigned before new development can occur within the 'Future Additional Study Area.'
- The proposed land use plan must provide a balanced and realistic mix of land uses in proper quantities.
- The plan must preserve ecologically sensitive areas and protect water quality in nearby water bodies.
- Norwood Young America must protect the right of way for the future Highway 5 alignment.

Concerns

- The creation of a new commercial district could out-compete existing businesses in the traditional downtown areas.
- The expansion of the Highway 212 corridor could divide the community and contribute to placeless development.
- Market demand may not support mixed use development.
- The plan might have negative impacts on residents of adjacent neighborhoods or current residents living in farmsteads.
- The expansion into the 'Future Additional Study Area' could result in isolated, low density neighborhoods with poor connectivity.

Opportunities

- The City could work with MnDOT on the Highway 5 realignment to perform an alternative urban areawide review (AUAR) to gain a deeper understanding of the natural and human environment of Norwood Young America.
- The creation of higher density neighborhoods might allow the city to eventually be served by intra-regional public transportation.
- The Greenway Legacy Plan provides Norwood Young America with an opportunity to incorporate trail planning into the ongoing urban design process as well as a way to connect urban destinations with outlying natural features.
- Adopting new design standards that promote pedestrian friendly streets and public spaces improves the capacity to establish connections between existing commercial hubs.
- Abandoned right of way from re-aligned or closed roads could be converted into green streets and incorporated into the trail network.

Potential Scenarios and Workshop Results

Workshop # 1

Potential Scenarios

The scenarios presented here represent not only different configurations of land uses, but also reflect different approaches to expanding the urban fabric. These scenarios were designed to emphasize different priorities and also be modular enough that elements from each plan could be isolated and combined with elements from the other plans. The first workshop occurred on November 17th, 2009 and involved the presentation of these scenarios and a visual preference survey.

Three different scenarios were generated to elicit feedback from members of the public and decision makers. Figure 8 illustrates the three potential scenarios side by side.



Figure 8: The three scenarios

The three plans each share a few key elements. The first element is the location of the school (shown in blue) where it has potential to expand once Highway 5 is re-routed. The

school has considered expanding into this area if it becomes available for sale. Another key similarity is the designation of the area around Tiger Lake as open space. This is present in all of the plans for a number of reasons. The land in this area contains several wetlands and overland drainage channels which need to be protected. It also provides the adequate buffer distance from Tiger Lake specified in the city's shoreline ordinance (NYA Comp Plan p. 2-26). Preserving this area as park space also creates a green gateway into the city from the west and creates a spatial node for the Greenway Legacy plan. The trail on the outside of the realigned Highway 5 is another shared element, varying only in its width and character. This greenway provides a connection to Baylor County Park and Young America Lake. The primary reason for locating the trail on the outside of Highway 5 is that the geometric standards prevent frequent intersections and most of the elements that need to be connected lie on the outer edge of the perimeter. The differences in width between the scenarios primarily reflect the vegetative character of the greenway. Otherwise, the specific features of each scenario are shown below.

Scenario 1: Traditional Development Scenario (Map 6)

The traditional development scenario is based entirely on the road network as it is proposed in the comprehensive plan. This situation provides maximum autonomy for developers by allowing them to configure road networks in a way that suits their style of development. This plan has the largest proportion of single family residential acreage of all of the plans, which is a continuation of the current pattern of residential development. It is likely that this scenario would result in discrete and private neighborhoods with relatively low densities and poor connectivity. Figure 9 is a thematic neighborhood layout showing a potential configuration of homes, streets, and open space. This neighborhood configuration values the privacy that comes from living on a large lot on a cul-de-sac (Figure 10).

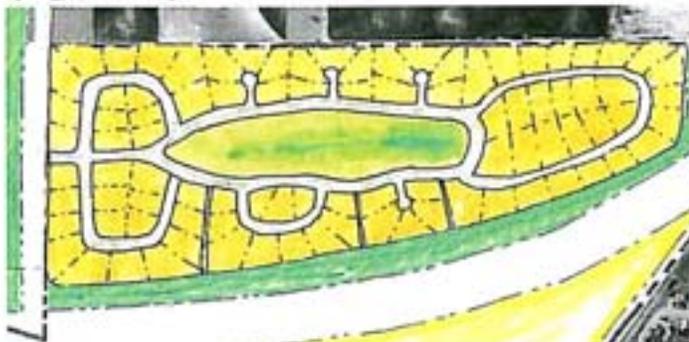
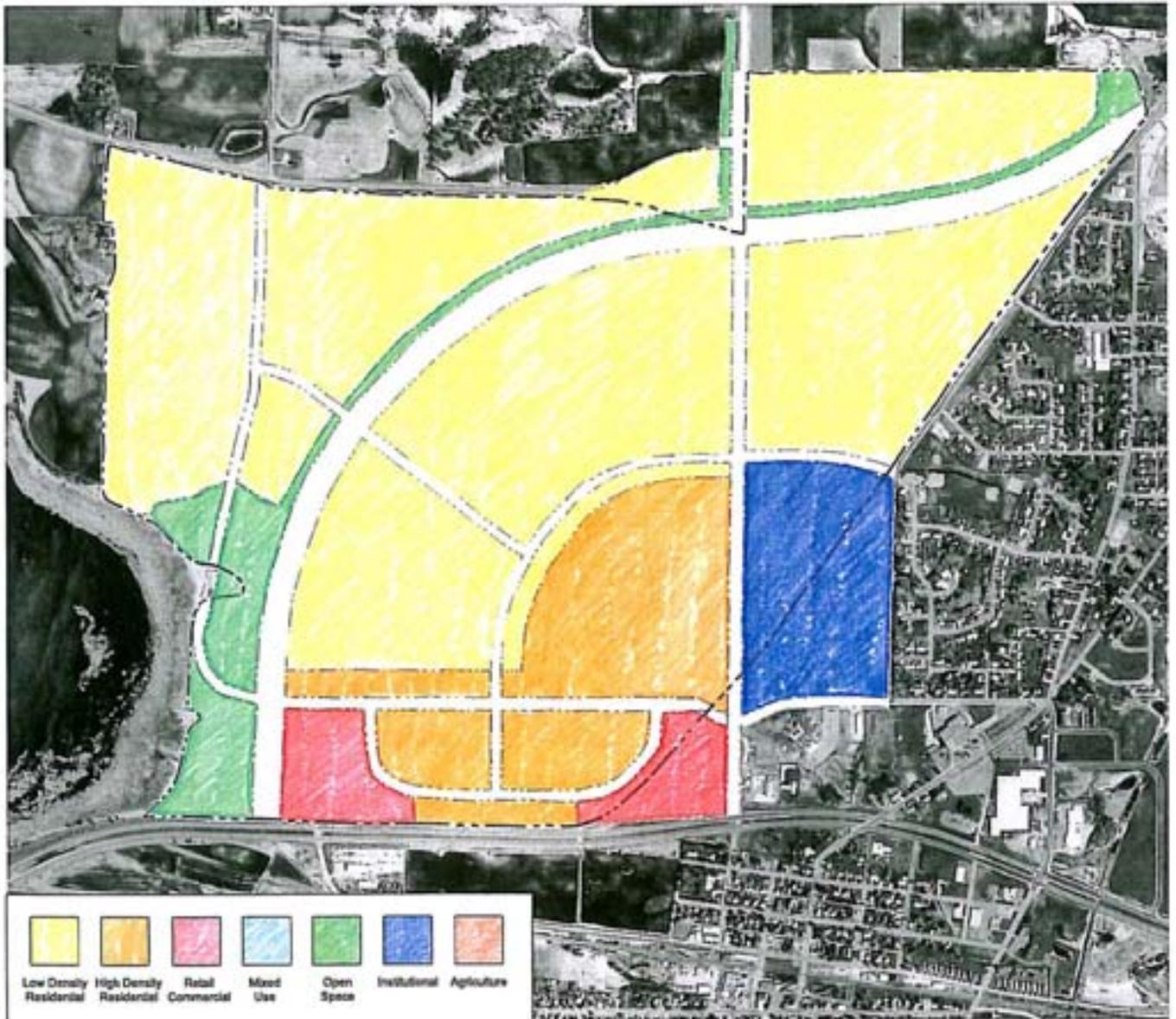


Figure 9: Conventional Low Density Neighborhood



Figure 10: Typical cul-de-sac, emphasizing privacy

Scenario 1 also sets aside a proportionally small amount of parkland, leaving it to subdivision regulations and dedication requirements to establish neighborhood scale parks. The trails in this scenario would be incorporated into the thoroughfare right of ways, a cost effective, but minimalist approach to creating an open space network. This scenario provides sizable highway commercial nodes at the future intersection of highway 5/212 and 34/212 with high density housing in between to prevent strip development as recommended in the comprehensive plan. This scenario has less acreage allotted to high density housing than

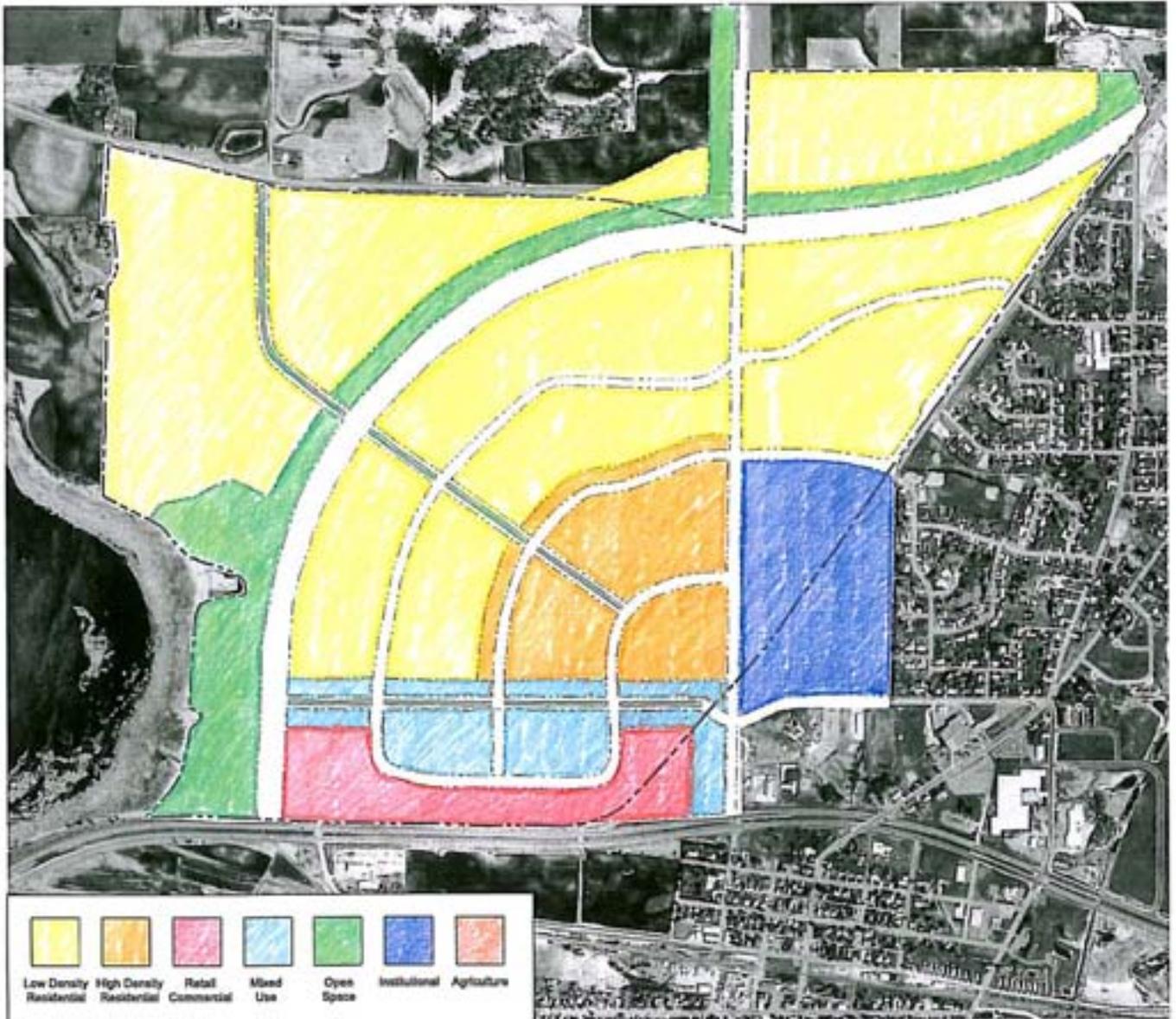


Map 6: Traditional Development Scenario

the projected demand. One noteworthy feature of this scenario is that it is well supported by the existing market research assuming that population growth is on the low end of the projections. The commercial retail would likely resemble the development around the Faxon Rd/212 intersection, while the higher density neighborhoods would physically buffer the lower density neighborhoods from Highway 212. One advantage that this scenario has is that it requires minimal policy changes to implement, essentially representing the status quo.

This scenario was constructed to show how development would occur if no new policy goals were implemented and typical suburban development patterns continued. This scenario was criticized first for having too many acres devoted to single family dwellings and also for the poor placement of the multi-family neighborhoods next to Highway 212. One

participant at the workshop raised the question, "If commercial developers are interested in the land, why make it into High Density Residential that people will not be interested in?" The scenario presence of cul-de-sacs and poorly connected neighborhoods, while discouraged in the comprehensive plan, did not elicit negative response. The general assessment of the scenario was that it was unimaginative and did not take full advantage of the opportunities provided by the new changes.



Map 7: New Urbanist Development Scenario

Scenario 2: New Urbanist Development Scenario

The New Urbanist Scenario emphasizes higher density development and the creation of walkable, mixed use commercial district along Highway 212. This scenario addresses

the need for high density development and is based on the suitability of this area for commercial development. Map 7 demonstrates how an expanded road network would promote better connectivity to existing neighborhoods, while providing an opportunity for attractive urban boulevards with bicycle infrastructure and attractive public open spaces (Figure 11). This scenario accommodates the future expansion of the 212 right of way by preserving the space necessary to create a pedestrian friendly frontage road. Since this scenario incorporates higher density development in a compact configuration, it also provides the strongest support for a bus rapid transit station adjacent to the current 5/212/34 intersection. This area is represented on the plan as a mixed use "thumb" that could serve as a pedestrian/cyclist connection to the future city hall site and possible commuter rail station. Currently, Norwood Young America does not have a zoning district capable of producing this kind of development which means that the city ordinance would need to be expanded to accommodate this scenario. In addition, this scenario recommends the implementation of improved urban design standards for new development.



Figure 11: New Urbanist Neighborhood with programmed public space

This scenario advocates for higher density residential development (5-18 dwelling units/acre) which along with the mixed use zoning district is not well supported by the market research. Although the city has a shortage of multi-family housing, the configuration and design of neighborhoods in this scenario will be critical. Figure 12 shows a possible neighborhood design that conforms to the recommendations of the comprehensive plan, while achieving a gross density of approximately eight dwelling units per acre. This thematic neighborhood layout creates connected neighborhoods with pocket parks and a clear street hierarchy.

The trails in this scenario are designed to resemble those found in the Minneapolis Grand Rounds parkway system in scale and appearance. This approach creates an open space network designed for human use with very limited habitat value. One downside of this approach is that these amenities will likely be much more costly to acquire and build

than the minimalist approach advocated for in Scenario 1.



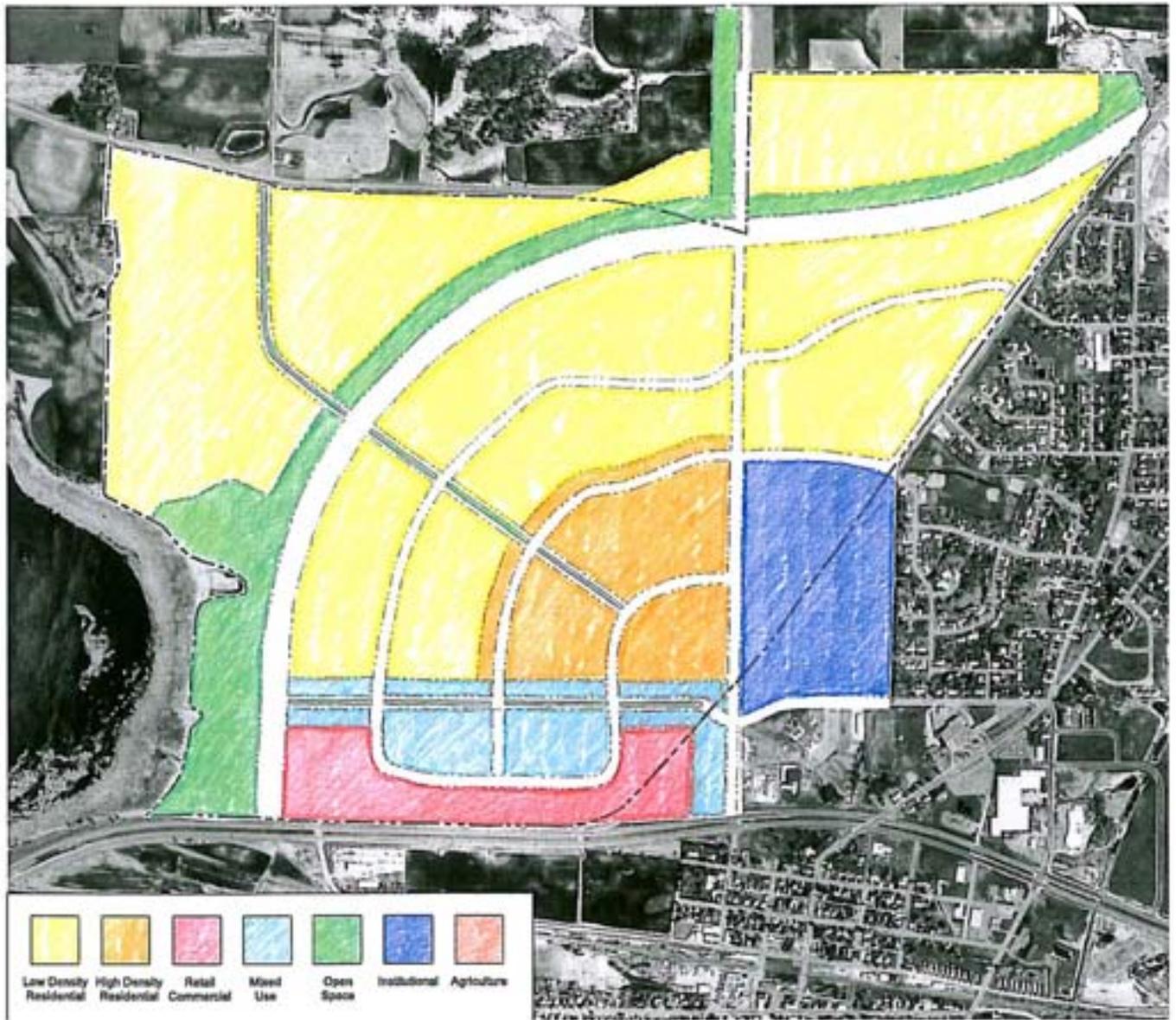
Figure 12: New Urbanist Neighborhood with high and low density housing

This scenario received a very positive reaction, but also provoked the most discussion. Since Norwood Young America already has multiple "downtown" areas, there was a concern from a number of participants about how the creation of a new commercial center would impact these existing centers. Some participants felt that it made more sense to emphasize connections to existing commercial centers, while others felt that the existing traditional downtown areas were poorly located and it made more sense to create a new commercial center that would better attract businesses. The general consensus was that mixed

use development might be problematic to implement, but that since the area is eminently suited to commercial use that it would make sense to prioritize pedestrian friendly site planning and thoroughfare design. This dovetailed well with the findings of the visual preference survey, which indicated a preference for the style of trails and thoroughfares recommended in this scenario.

Scenario 3: Low Impact Development Scenario

The Low Impact Development Scenario places an emphasis on preserving existing environmental features such as woodlots, grasslands, and farmland. The scenario has a small amount of highway commercial and high density residential lining the highway, with wide vegetated corridors connecting the parks and promoting high connectivity (Map 8). The scenario also emphasizes alternative stormwater management practices such as protecting existing drainage channels, disconnected impervious surfaces, and infiltration practices such as rain gardens and bioswales. The principle development tools advocated for in this plan are an updated planned unit development ordinance and improved subdivision regulations that promote clustered development. The neighborhoods in this scenario avoid sensitive ecological features and incorporates alternative stormwater management practices. Figure 13 is a thematic neighborhood layout that demonstrates how development could be oriented to protect wetlands by incorporating bio-retention cells to capture runoff



Map 7: New Urbanist Development Scenario

and placing clusters of higher density housing on land suitable for development. This setup also has the advantage of creating borrowed views and access to natural open space (Figure 14). In areas designated for high density development, the emphasis would be to create multi-functional green infrastructure such as rain gardens, green roofs, and pervious pavements. While the scenario does not contain enough commercial and high density residential land to meet projected demand, it is well supported by local precedents such as "The Preserve" and has a strong synergy with the Greenway Legacy Plan.

Another noteworthy feature of this scenario is the emphasis on protecting farmland on the urban periphery. The rationale is that this would promote more compact urban development rather than sprawl. This is combined with an emphasis on restoring sub-prime farmland to pre-settlement conditions to improve habitat and create a more rural



Figure 13: Clustered residential development to protect wetland features and create views



Figure 13: Low Impact Development Neighborhood

trail system. This aspect of the plan proved problematic as it raises equity issues regarding who is able to develop their land. Also, the proposed vegetative restoration along the proposed trail corridor was not favored in the visual preference survey and raised concerns about the maintenance and funding for this sort of restoration. The criticisms of this plan tended to focus on the poor configuration of the high density housing, the excessive amount of land set aside for open space, and the arbitrary restrictions to protect certain parcels of farmland.

However, there was a very positive reaction to the adoption of improved planned unit development standards and an emphasis on protecting water resources. There was an overall agreement that the low impact development scenario had a value for shaping new residential development and emphasizing conservation of existing natural areas.

Summary of Scenarios

These scenarios, as well as the background context were presented to a group of residents who lived in the affected area as well as members of the planning commission.

After the presentation, the project team solicited feedback from members of the community regarding the scenarios. Much of the discussion focused on the composition of the new commercial area relative to the existing commercial centers. Some felt that the Faxon Road area effectively functioned as the downtown and that the traditional downtown commercial areas were poorly located to capitalize on new business. Others felt that it made little sense to build a new pedestrian friendly mixed use/commercial area when the existing areas were already struggling. Some felt that in order for Norwood Young America to have a central downtown area that it needed to be created from whole cloth. A critical determinant in the discussion had to do with the likelihood that these areas with good visibility from the highway corridors would eventually have appeal for commercial development and were not suitable for many other uses. This raised the question, "If new commercial development is set to occur in this area, what form should it take?"

While no consensus emerged about the best course of action the discussion tended to focus on a few alternatives. One was to create a new, walkable commercial district to capitalize on automobile traffic and higher density development. One concept was to encourage conventional highway development that would not compete negatively with downtown oriented businesses. Another idea was to create a smaller scale mixed use district which would create a pedestrian connection to the future city hall site on Elm Street.

In general, the attendees preferred the commercial district as portrayed in the New Urbanist scenario. The benefits of this scenario are that it adequately provides enough commercial land to satisfy the projected demand and also aims to create a commercial environment friendly to pedestrians, cyclists, and automobiles. Considering the long term expansion of the 212 corridor, the 'Future Additional Study Area' could serve as a template for future redevelopment that is friendly to pedestrians and cyclists.

The attendees also expressed some concern about the presence of higher density housing and affordable housing, but for the most part felt that the low-impact development scenario offered the best approach to new residential neighborhood design when combined with the scenic public thoroughfares of the new urbanist scenario.

Another area of discussion was the extent to which future public transportation options should be accommodated in the plan. Some attendees expressed concern regarding the feasibility of achieving levels of ridership that would justify the implementation of bus rapid transit or a commuter rail line. This objective has been the subject of much past debate and some of the attendees felt that too many false promises and manipulation by stakeholders had caused the public to mistrust advocates of public transportation. Other attendees felt that the long term rise in gasoline prices had the potential to create more demand for this kind of service, and though it was clearly a long term goal it was sensible to pursue this goal in earnest.

Visual Preference Survey Results

The visual preference survey isolated the different elements of urban environments and asked workshop attendees to choose their favorite of each category. There were five separate boards that each addressed one of the following subjects, residential structures, commercial structures, streetscapes, parks, and trails. The boards contained multiple

11" x 17" pieces of paper, each containing multiple images that corresponded to a style or typology. Each participant received six stickers with instructions to place one sticker per board on the sheet that they preferred. They were able to place the last sticker on whatever sheet was their favorite overall. The actual images from the survey are displayed as Appendix Items 2A - 2T. Charts 1 through 5 show the preference results for each subject. Some topics displayed an overwhelming preference for a certain style, but others were much more balanced.

Residential Structures

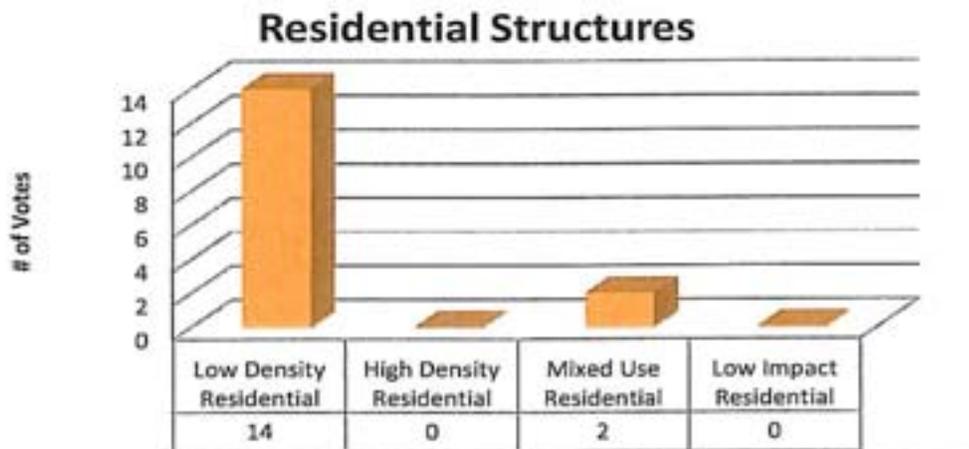


Chart 1: Residential Structure Preference

The attendees of the workshop displayed an overwhelming preference for low density housing. The images reflect a preference for detached single family homes over townhomes and larger apartment buildings. This likely reflects the tendency of rural residents to prefer privacy and open space over dense urban environments. Also, there did not seem to be support for homes emphasizing sustainable design practices such as solar panels and green roofs.

Commercial Structures

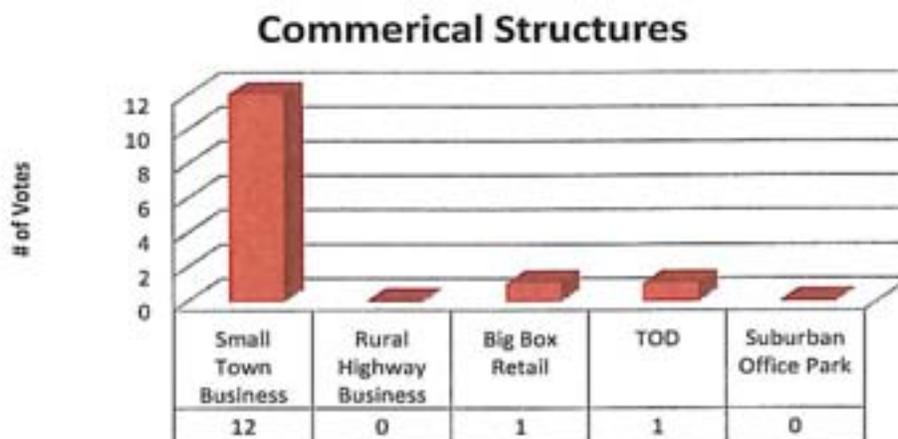


Chart 2: Commercial Structure Preference

There was an overwhelming preference for small town businesses in individual storefronts over larger big box stores and rural highway commercial. While not surprising, this finding is confounded somewhat by the challenges that these types of businesses face in competing with big box retailers and automobile oriented businesses. This result seems to reflect an interest in having a vibrant downtown that is financially viable and attractive.

Streetscapes

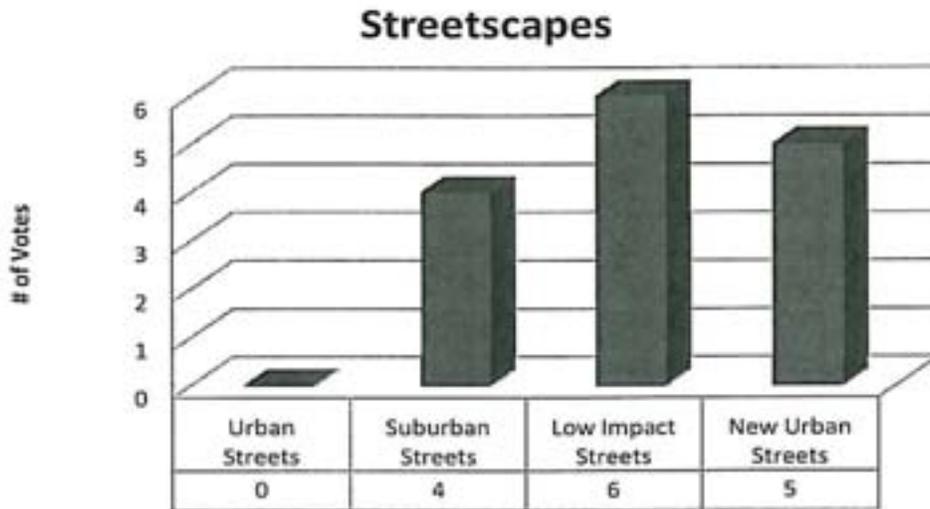


Chart 3: Streetscape Preference

While this category did not have a clear winner, there was a clear preference for streets with ample amounts of vegetation over those without. Attendees did not express a clear preference for multi-functional streets that incorporated stormwater management in the boulevards, but they did seem to prefer streets with mature tree canopies and colorful boulevard plantings. These urban amenities obviously add value and should be incorporated into any new urban development.

Parks

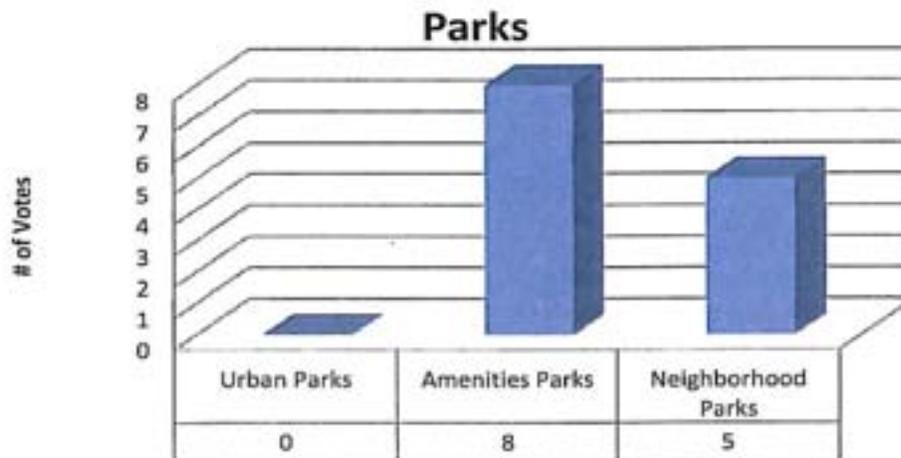


Chart 4: Park Preference

While not as clear as some of the other categories, attendees did express a preference for parks containing amenities such as playgrounds, fountains, and sports facilities over parks emphasizing natural features or urban plazas. This reflects an interest in parks that are sufficiently programmed to function as destinations for specific users. Prairie Dawn Park on the eastern side of town demonstrates the value of incorporating amenities intended for specific users. This subject deserves further study as part of the Greenway Legacy Plan.

Trails

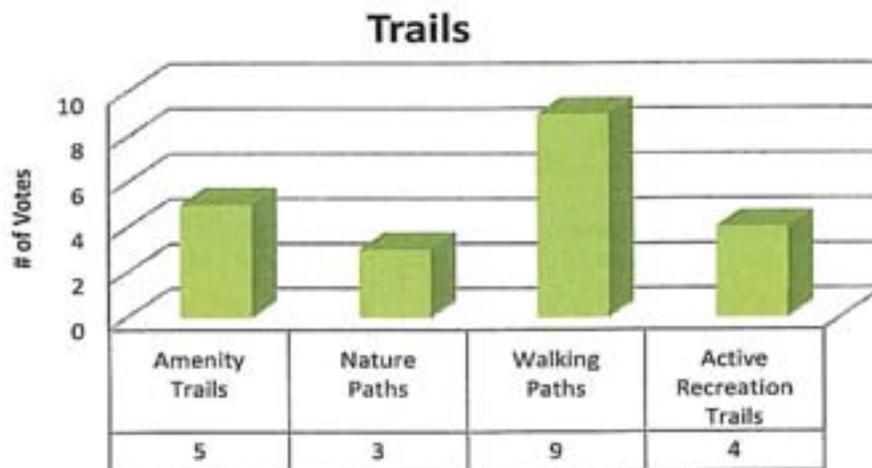


Chart 5: Trail Preference

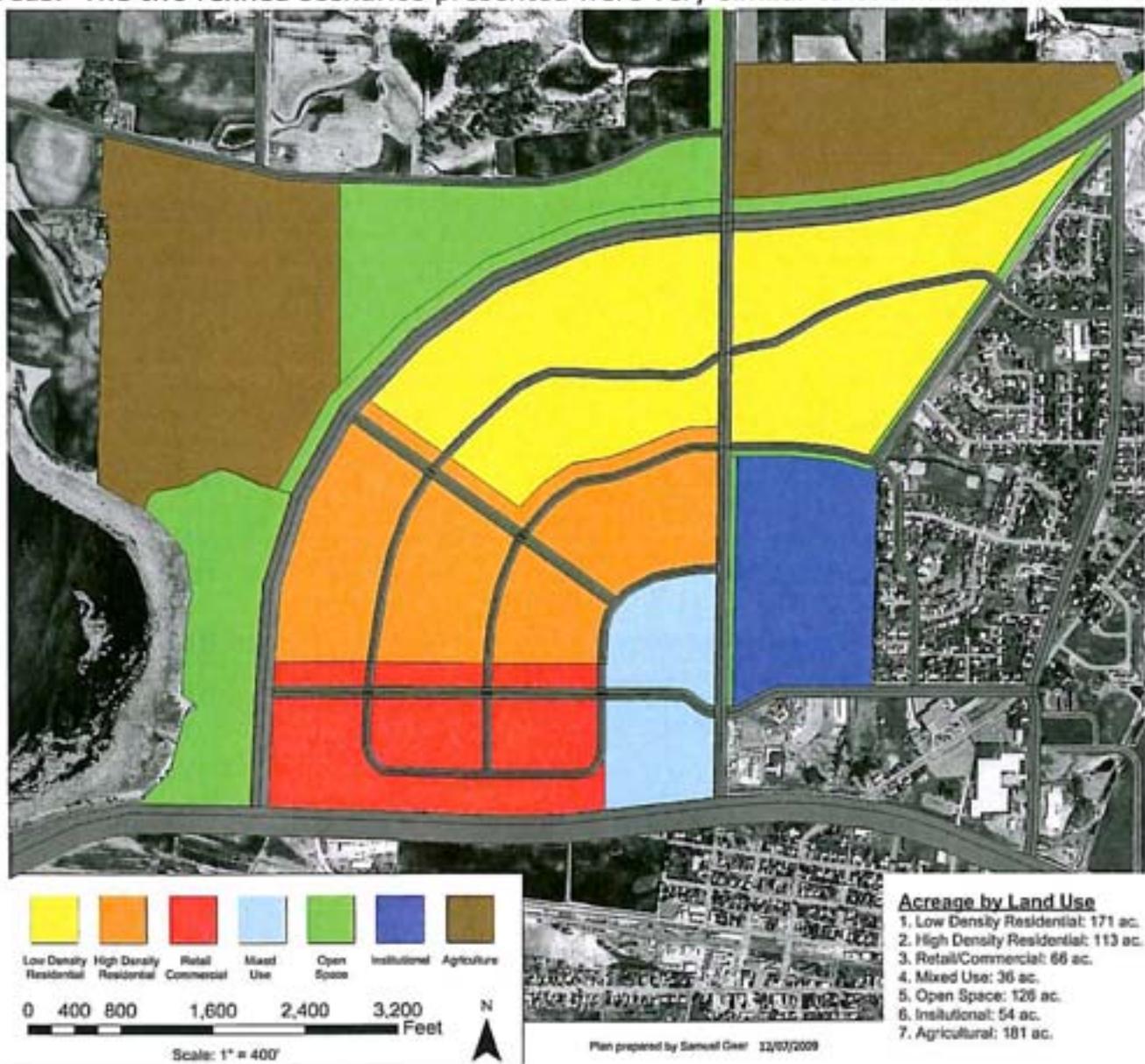
No clear preferences emerged regarding trail design, with the results indicating that the best course of action would be to design multifunctional trails that could serve a wide variety of users. The survey indicated that the most popular choice was leisurely walking trails in a park setting, with trails that connect users to amenities and can be used for non-motorized transportation also being very popular. Lastly, trails that emphasize immersion in nature or active recreational use also received a good number of votes. Taken together these results indicate that trail diversity and connectivity are the most important goals that should be considered when designing new trail networks.

Summary

The results of the visual preference survey highlight the challenges of integrating density into a small rural community. The results show a real preference for preserving the rural character of the community, but also the interest in creating distinctive, pedestrian friendly districts. The results of this survey provide guidance about what form development should take and how transportation routes can be configured to add value to a community.

Workshop # 2

The discussion from the first workshop and the results of the visual preference survey guided the future revision of the plans that were presented at the second workshop held on December 10th 2009. The second workshop, while open to the public, was only attended by members of the planning commission and a representative of Young America Township. The discussion at the second workshop focused more explicitly on questions raised by the first workshop and aimed to produce a final version of the land use plan. This workshop focused explicitly on what course of action that the city should take regarding the current 5/212 intersection, the preferred design of the new commercial area, and what stance the city should take towards establishing connections to the existing commercial areas. The two refined scenarios presented were very similar to each other. Both refined



Map 8: Enhanced Connections

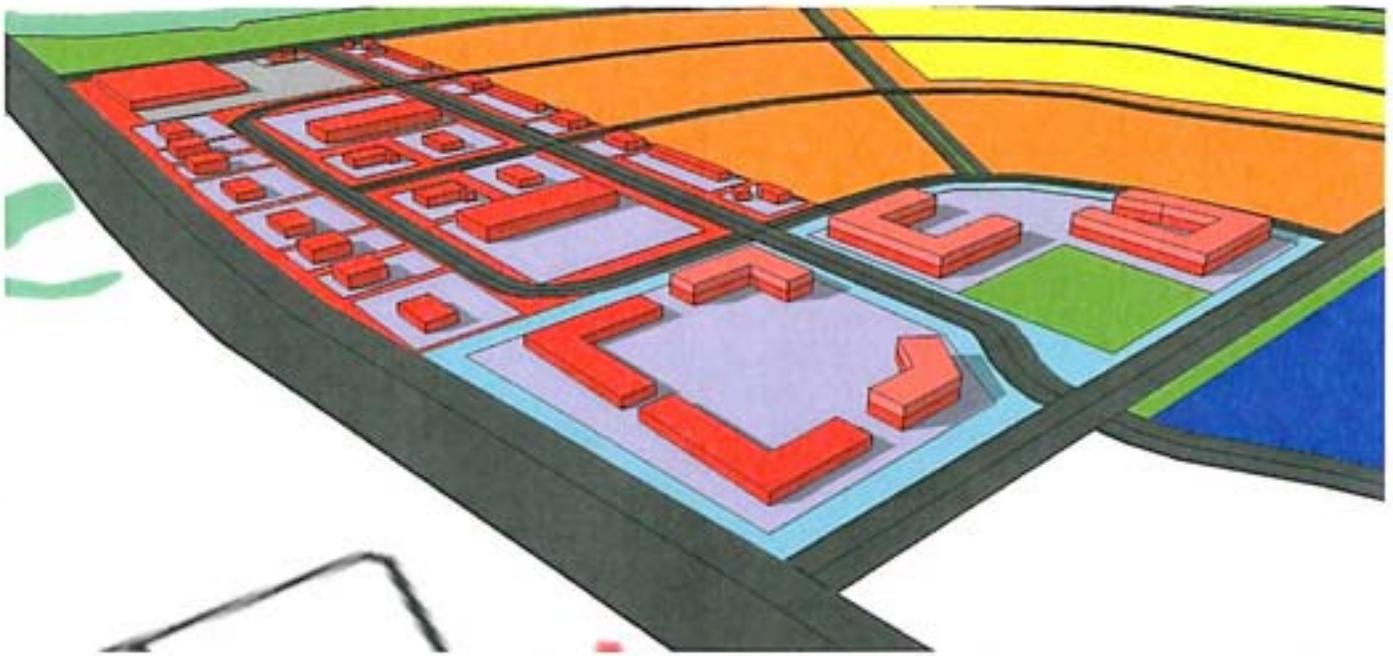


Figure 14: New mixed use are with open space to the east of the conventional highway commercial district

scenarios embrace the application of low-impact development site planning strategies as well as the need for higher densities.

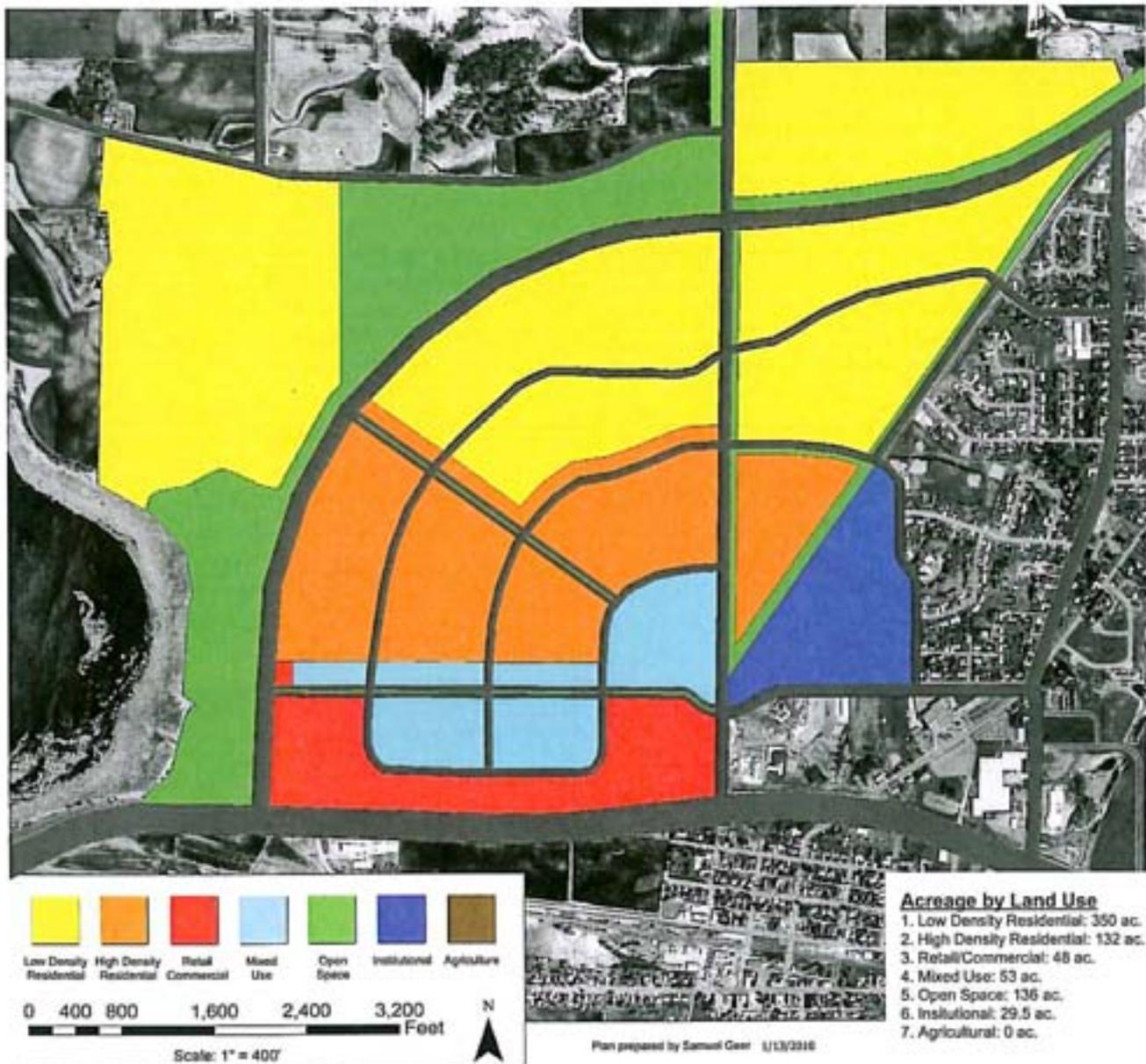
The first scenario, entitled Enhanced Connections (Map 8), calls for the protection of farmland outside of the proposed Highway 5 realignment, the creation of a compact mixed use district capable of connecting to nearby commercial centers, and a conventional highway commercial district to the west (Figure 14). This plan aims to cater to demand for conventional highway commercial development, while creating a more compact and feasible mixed use district that has the capacity to connect to existing commercial districts. The plan proposes converting abandoned road right of ways into trails that connect existing natural and urban amenities to the new neighborhood.

The second scenario, entitled New Commercial Center, embraces the creation of a larger, pedestrian friendly commercial district governed by design standards to ensure that even if mixed uses are not supported by the market, the commercial area will still be pedestrian friendly and practice low-impact development techniques. This plan supplements the advantages of a high visibility location and high traffic with high density residential neighborhoods in easy walking distance. Instead of preserving farmland on the outside of Highway 5, this plan creates the opportunity for more low density residential housing once there is suitable demand. The high density of development in this plan is conducive to the long term goal of supporting public transportation. This scenario also emphasizes the creation of attractive boulevards and conversion of abandoned right of way into trails.

The participants of the second workshop expressed a preference for the second plan because of its flexibility and progressive direction. The participants of the workshop embraced this design and for that reason, this report recommends this refined scenario as the final land use plan for the 'Future Additional Study Area'. The boards and presentation materials are attached to this report collectively as appendix Item 3A - 3E

Recommended Land Use Plan

The final land use plan for the 'Future Additional Study Area' reflects the values of the community members that attended the workshops as well as the technical specifics of the many plans which affect the area. However, it is important to note that this plan is highly dependent on the actions of MnDOT, Carver County and the ongoing planning regarding Highway 5 and Highway 212. The proposed street layouts contained within this report are dependent on in depth environmental analysis and transportation engineering that will need to take place in the next fifteen to twenty years. In addition, the actions of the city, landowners, and developers could drastically change the proposed configuration of streets



Map 9: New Urban Center

and neighborhoods. The plan ensures that adequate acreage is devoted to commercial land uses and high density residential uses (Map 9). The plan also specifies proportionally more open space than is required by the comprehensive plan (NYA Comp Plan p. 2-11). The low density areas are in excess of projected demand for 2030, but allow decision makers greater flexibility in determining where new development can occur.

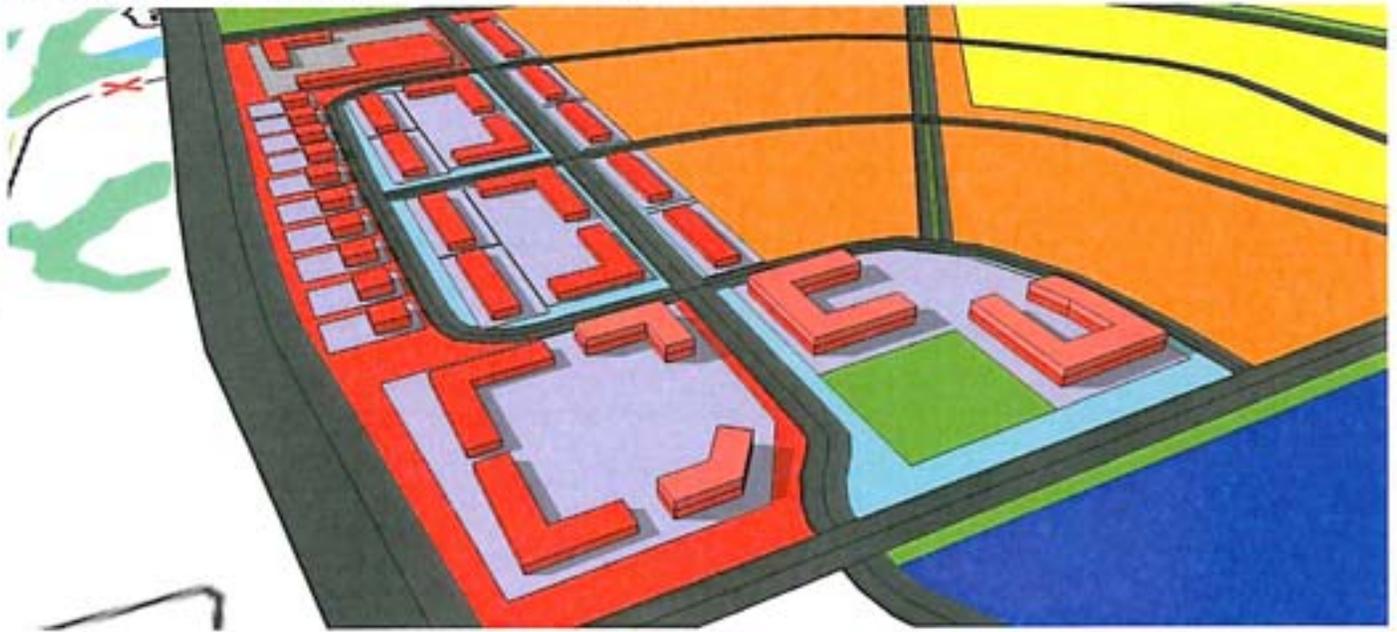


Figure 15: Highway commercial design standards to create a pedestrian friendly highway commercial district

Major features of the plan include an eighty acre commercial area which could potentially include mixed uses and should be designed to be a pedestrian friendly. This area is in a high visibility location near the future confluence of Highway 5 and Highway 212. Figure 15 demonstrates how the implementation of design standards could lead to a commercial district that appealed to automobiles and pedestrians. By requiring new development to maintain a consistent streetwall with rear or side parking and plant ample amounts of trees, the area can serve multiple constituencies.

At the west end of this area, is a large park which will protect water quality in Tiger Lake and can serve as a green gateway to the community from the west. To the east of the commercial area, the school could expand once Highway 5 is realigned or this area can be developed as high density residential. By incorporating trails into the abandoned right of way, it is possible to provide an alternative way for youths to get to school. Behind the commercial area, a high density housing area is proposed. Multi-family and high density affordable housing is in short supply and this would provide approximately 126 acres of land for that purpose. This could support the commercial area adjacent to the highway and could be connected to it in a pedestrian friendly manner. To the east of this area, there is currently a landscape of wetlands and frequently flooded pastures. This area is designated for low density housing, which could be built as a low-impact "cluster" development with improved P.U.D. standards. The other low density housing areas beyond the re-routed Highway 5 would serve as long term growth areas. Along the outer side of the Highway 5

realignment additional right of way could be dedicated for the planned Greenway Legacy trail which could act as a beltway to connect the lakes and natural areas around Norwood Young America.

The eventual changes regarding the current 5/212 intersection as well as the expansion of Highway 212 will have immense impact on the walkability of the city and must be carefully managed. It is the recommendation of this report that the city aim to incorporate a safe and accessible pedestrian/cyclist passage across the 212 corridor when the current intersection is altered. In all likelihood, the 212 corridor will expand in its function as the "downtown" of Norwood Young America. In order to maintain connectivity between the North and South sides of town it will be important to find ways to humanize the corridor.

Another consideration worth thinking carefully about is how to protect land which may have future value as a bus rapid transit station and how connections between this area and the existing commercial areas around Faxon Road and downtown Norwood could be enhanced in the long term. If developed in a transit-oriented fashion the "Future Additional Study Area" could signal to the state and county government that Norwood Young America is serious about supporting mass transit.

The development of the 'Future Additional Study Area' is not likely to occur in the immediate future. This affords the city time to begin dialogues with MnDOT and the Department of Natural Resources to address transportation and environmental issues. The city has time to overhaul its planned unit development ordinances and subdivision regulations to better accomplish its development goals. The city can seek to implement design standards to ensure that new development has the intended physical form. Likewise, it can move ahead with the Legacy Greenway Program to identify ideal locations for trail alignments. The benefit of long range planning is that it allows the city to consider these issues carefully before the situation intensifies under pressure from developers and government agencies. For this reason it is important for the city to have a clear strategy for how it will move forward and also have clear precedents that it can study for inspiration.

Implementation Strategies

This section contains recommendations that the city can begin to follow in order to begin achieving the objectives outlined in this report. Some of these activities are already underway or are included in the comprehensive plan. Others present precedents for how Norwood Young America can begin to acquire funding to achieve its development or conservation goals. It is the choice of the city's staff, residents, and elected officials which of these actions they wish to pursue and to what extent.

Strategies

Recommended Action: Implement the land use scheme recommended by this report as an amendment to the most recent comprehensive plan.

Timeframe: As soon as possible

Purpose: To ensure that the city is in full compliance with the Metropolitan Council.

Recommended Action: Continue to support the Vision 212 Plan

Timeframe: Immediately

Purpose: As a corridor wide economic development plan, Vision 212 provides Norwood Young America with an opportunity to better define its role in the region and collaborate with its neighbors to improve infrastructure, services, and economic development prospects. The benefits from engaging with this program will no doubt become evident over time.

Recommended Action: Begin detailed dialogue with MnDOT and Carver County regarding the existing Highway 5/212 intersection.

Timeframe: 0-5 years

Purpose: Due to the slow and deliberate nature of public processes, Norwood Young America should express its interest in the reconfiguration of this intersection to allow vehicle access into the 'Future Additional Study Area.' It is likely that commercial demand for the land along Highway 212 will begin to pick up in the near future and in order to accommodate this demand the city should begin the process of defining how exactly they wish this intersection to function. Pedestrian crossing of the 212 corridor will be an important consideration.

Precedents: The process followed in the Norwood Young America Partnership Study for the 212/134 intersection provides a basis for how the community can move towards implementation in the context of the partnership study.

Recommended Action: Initiate process to improve Norwood Young America's planned unit development ordinance and subdivision ordinance.

Timeframe: 0-5 years

Purpose: Norwood Young America's planned unit development ordinance lacks the depth to accomplish many of the goals recommended in this report. There is an opportunity to incorporate commercial and mixed uses into the planned unit development ordinances. Likewise, the subdivision ordinances could be amended to promote sustainable site planning practices, such as higher density cluster development, passive solar heating and alternative stormwater management practices.

Precedents: The cities of Lino Lakes and Lake Elmo have both been very progressive in pursuing planning practices that protect open space and water quality. Their planned unit development ordinances could be an excellent precedent.

Recommended Action: Investigate alternative methods of guiding development to have higher quality forms through the use of form based codes or design standards.

Timeframe: 0-5 years

Purpose: The implementation of form based codes or illustrated urban design standards could lead to improved site planning and urban design for development and infill projects.

Precedents: The city of Montrose recently implemented a set of urban design standards for their downtown commercial district and highway commercial district. This provides an additional layer of site plan review that can clarify what the city hopes new development to accomplish. Likewise, a more advanced Form Based code such as the SmartCode created by the Form Based Codes Institute could be a more ambitious long term goal.

Recommended Action: Work with MnDOT to determine the feasibility of conducting an alternative urban areawide review (AUAR) as an alternative to the Environmental Impact Assessment (EIA) which would typically occur regarding the Highway 5 realignment.

Timeframe: 5-10 years

Purpose: An AUAR evaluates cumulative environmental impacts over a large area instead of project-by-project impacts. It increases awareness of area-wide environmental issues prior to development and promotes a more consistent handling of these issues during the development process. In addition, the process could streamline the public participation process and make development more attractive due to the reduced need for environmental assessment.

Precedents: The city of Rochester recently performed an AUAR to assess the likely impacts of new development as a result of a sewer trunk extension. A similar rationale could be likely due to increased urban growth and the Highway 5 realignment.

Conclusion

The primary purpose of this report is to offer a flexible land use scheme and illustrate the range of important choices that must be made regarding how to implement complex land use planning situation. This is a task that will require extensive collaboration with government agencies, private citizens, and local government. The report relies on the practice of scenario building to encourage participants and decision makers to both pose and attempt to answer tough questions about where, when, and how urban development should occur in Norwood Young America. The final plan incorporates input from many people and plans and is intended to act as a starting point for the city and the new growth that will arrive in Norwood Young America in the coming decades.

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